

## **SUPPLEMENTAL PHASE II E-911 Report**

### **Background/Contact Information**

#### **(1) Carrier Identifying Information**

Concho Cellular Telephone Company  
TRS # 808884

#### **(2) Contact Information**

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### **E911 Phase II Location Technology Information**

#### **(1) Type of Technology**

Concho Cellular Telephone Company ("Concho") is the cellular licensee of Station KNKQ428. Concho believes that a network-based technology is the only option available as of the date of this filing. Most major handset manufacturers have notified the Commission that they will not produce location capable handsets in time to meet the Commission's requirements. Concho is unaware of any technology which has been proven in independent, scientifically valid trials to meet the Commission's requirements.

Concho will likely utilize a combination of TDOA (Time Difference of Arrival) and AOA (Angle of Arrival) technology position determining equipment.

TDOA uses multiple receivers, located at cell sites, with highly accurate timing sources. It requires a minimum of three receivers to locate a caller. The mobile unit's signal is received at the cell sites and time stamped. The difference in the time received is used to calculate intersecting hyperbolic lines. The intersection of these lines is an estimation of the caller's location.

AOA utilizes an array of specialized antennas located at cell sites. The array determines the angle at which the mobile unit's signal arrives at each element of an array. The intersection of the angle at which the signal arrives at multiple cell sites is used to estimate the location of the caller.

Concho will likely use the same technology throughout its service territory.

In addition to Position Determining Equipment (PDE), all technologies require a location management system to interface between the PDE and the mobile switching center and the wireline network E911 system. It is possible that modifications to Concho's mobile switching

centers and network may be required. It is also anticipated that modifications to the wireline E911 network will be required as well. Concho is unaware of any such required modifications. Concho has not chosen a vender or venders for either PDE or location management as of the date of this filing.

(2) Testing and Verification

Concho has not conducted any tests of Phase II technology. Concho will adopt testing and verification methods and procedures based on sound engineering and statistical practices. This testing and verification will likely be incorporated into routine testing of the wireless network by company technicians.

(3) Implementation Details and Schedule

Concho's strategy will be to purchase the required equipment (hardware and software) and services on the competitive market and deploy the same in accordance with the Commission's rules. Concho will notify the FCC of a specific schedule for implementation once a vendor has been chosen. Concho recognizes that the Commission's rules require the deployment of a Phase II system, even if none exists which fully meet the Commission's accuracy requirements.

(4) PSAP Interface

Concho will incorporate any required industry standards. Concho will transmit the data through the public switched telephone network to the PSAP following industry standards adopted by the service supplier providing E911 service to the PSAP.

(5) Existing Handsets

Concho will deploy a network based technology. This section is therefore not applicable.

(6) Location of Non-Compatible Handsets

Concho will deploy a network based technology. This section is therefore not applicable.

(7) Other Information

Not Applicable.